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SPENCER T. SMITH
EMHART GLASS MANUFACTURING INC.
89 PHOENIX AVENUE, P.O. BOX 1229
ENFIELD, CT 06083-1229

EXAMINER

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 13

Application Number: 09/318,249
Filing Date: May 25, 1999
Appellant(s): FURNAS, WILLIAM J.

Spencer T. Smith
For Appellant

EXAMINER'S ANSWER

MAILED

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GROUP 2800

This is in response to the appeal brief filed October 1, 2001 and the supplemental brief
filed April 11, 2002.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is substantially correct.

The rejections of claims 1-7 under 35 U.S.C. 112 2nd paragraph and the rejections of claims 3-7 under 35 U.S.C. 103(a) have been withdrawn.

The only issues are:

(a) Whether the rejection of claim 1 under 35 U.S.C 102(b) as being anticipated by Juvinall et al. (U.S. Patent 4,601,395) is proper; and

(b) Whether the rejection of claim 2 under 35 U.S.C. 103(a) as being obvious over Juvinall et al. in view of Ishikawa et al. (U.S. Patent 4,923,083) is proper.

(7) Grouping of Claims

The rejection of claims 1-7 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4,601,395	Juvinall et al.	July-1986
4,924,083	Ishikawa et al.	May-1990

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, as understood, is rejected under 35 U.S.C. 102(b) as being anticipated by Juvinall et al. (U.S. Patent 4,601,395).

Regarding claim 1, Juvinall et al. disclose (see Figures 1, 2 and 4) a machine for inspecting the wall of a bottle comprising: a conveyor (see Figure 1) for supporting a bottle at an inspection station, the inspection station including (see Figure 2) a CCD camera (42 and column 4, lines 15-17) on one side of the conveyor having a camera

image, a light source (52 or 40 generally), having an illumination area (dotted lines in Figure 2), on the other side of the conveyor, for imaging the bottle on the CCD camera image; means for defining on the illumination area light intensities (50) varying between (see Figure 4a) a minimum brightness level (62a) that will permit the identification of a light blocking defect (64) and a maximum brightness level (58a), the brightness level (see Figure 4a) varying spatially, cyclically, and continuously at a rate of change which is less than a rate of change that would be identified as a defect (in Figure 4a, the brightness level rate of change varies less than a rate of change in the defect 64), computer means (56 of Figure 2) for analyzing the camera image by comparing neighboring pixels to determine the rate of change in brightness level to identify defects where the rate of change exceeds a defined value (see column 4, lines 66 - column 5, line 7, "The information processor 56 generates an event signal when the magnitude of signals from adjacent pixels in a scan differ by more than a preselected threshold.. The information processor 56 performs a connectivity analysis by evaluating the locations of a plurality of events to determine whether a defect is present.")

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Juvinall et al. in view of Ishikawa et al. (U.S. Patent 4,924,083).

Regarding claim 2, Juvinall et al. disclose (see Figure 2 and column 4, lines 50-54) a source (52) disposed within a light source (40). Juvinall et al. also teach that (see column 4, lines 27-30) "Light source 40... comprises a plurality of incandescent lamps disposed in three columns..." Although Figure 2 shows only one source (52), Juvinall et al. teach that more than one light source in a column configuration is actually used. Juvinall et al. do not specifically teach the use of a plurality of LED rows. Ishikawa et al. disclose (see Figure 18) a light source comprising a plurality of LED rows (40) for a bottle inspection device. Furthermore, it is well known that LEDs provide more efficient illumination. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a plurality of LED rows as the light source of the device of Juvinall et al. in view of Ishikawa et al. to provide more efficient illumination and to reduce operating costs.

Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(11) Response to Argument

Appellant's arguments in regard to the 35 U.S.C. 112 rejections of claims 1-7 are now moot since those rejections have been withdrawn.

Appellant's arguments in regard to the 35 U.S.C. 103(a) rejections of claims 3-7 as being obvious over Juvinall et al. are also moot in view of the withdrawal of those rejections.

First, in regard to the anticipation of claim 1 by Juvinall et al., Appellant argues (see pages 4-5 of the Brief) that the single light source of Juvinall et al. cannot generate an illumination area as claimed since the light source only has a single brightness level. Appellant further argues (see page 2, last paragraph of the Supplemental Brief) that Juvinall et al. does not vary the intensities on the illumination area, but rather on the filter.

Examiner disagrees. Appellant does not claim the light source of the invention generating multiple brightness levels. Appellant admits (see page 4, paragraph 1 of Brief) that "it is the illumination area of the light source that has a variety of intensities." An illumination area of a light is an area in which the light illuminates. As shown from Figures 2 and 4 of Juvinall et al. the filter (50) causes the illumination area (dotted lines of Figure 2) of the light source to have a variety of intensities. That is, the light source (52) illuminates through the filter (50), generating an illumination area of the light source on the other side of the filter, which varies as claimed (see Figure 4). The illumination area further images the bottle (22) on the camera (42). Contrary to Appellant's assertions, the filter of Juvinall et al. does vary the brightness level of the illumination area. Thus, as set forth above, Juvinall et al. does anticipate the invention of claim 1.

Second, in regard to the obviousness of claim 2, Appellant argues (see page 5 of the Brief) that it would not be obvious to substitute a row of LEDs for the single light source of Juvinall et al.

Examiner disagrees. As set forth in the rejection above, Juvinall et al. teach (see column 4, lines 50-54 and lines 27-30) the light source comprising "a plurality of

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incandescent lamps disposed in three columns." Further, the use of LEDs are widespread and it is well known in the art that LEDs provide more efficient illumination and last longer than incandescent bulbs. Ishikawa et al. also teach (see Figure 18; numeral 40) using rows of LEDs for illuminating bottles for inspection. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a plurality of rows of LED in the device of Juvinall et al. in view of Ishikawa et al. to provide more efficient illumination and to reduce operating costs.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Frank G. Font
Supervisory Patent Examiner
Technology Center 2800

txl
May 21, 2002

Appeal conferees:

Arthur Grimley *AG*

Frank Font

SPENCER T SMITH
EMHART GLASS MANUFACTURING INC
123 DAY HILL ROAD
P O BOX 700
WINDSOR, CT 06095